It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Claims:

Please cancel claims 1-27 without prejudice or disclaimer.

Please add the following new claims:

28. (new) A process for determining the pharmacological effect of a substance on the activity of various biological target molecules, wherein a substance is applied to test cells which contain one or more biological target molecules and the effect of the substance on the activity of the target molecules is determined, characterised in that

(a) a defined amount of a test substance is applied to test cells with the same basic biological constitution which differ in that they contain one or more different biological target molecules;

(b) the effect of the substance on the or each biological target molecule is measured using a detection system coupled to the activation of the target molecule; and

(c) the effects measured in (b) are directly or indirectly compared with one another, whereby the effect of the substance on the activity of the target molecules is determined;

wherein said test cells with the same basic biological constitution are test cells derived from one type of tissue and one species.

29 (new) A process for determining the pharmacological effect of a substance on the activity of various biological target molecules, wherein a substance is applied to test cells which contain one or more biological target molecules and the effect of the substance on the activity of the target molecules is determined, characterised in that

(a) a defined amount of a test substance is applied to test cells which contain one or more biological target molecules, the test cells differing in that they have different basic biological constitutions;

(b) the effect of the substance on the or each biological target molecule is measured using a detection system coupled to the activation of the target molecule; and

(c) the effects measured in (b) are directly or indirectly compared with one another, whereby the effect of the substance on the activity of the target molecules is determined;

wherein said test cells differing in that they have different basic biological constitutions are test cells not derived from one type of tissue and one species.

30. (new) A process for determining the pharmacological effect of a substance on the activity of various biological target molecules, wherein a substance is applied to test cells which contain one or more biological target molecules and the effect of the substance on the activity of the target molecules is determined, characterised in that

(a) a defined amount of a test substance is applied to test cells with the same basic biological constitution which differ in that they contain one or more different biological target molecules;

(b) the effect of the substance on different regulatory mechanisms triggered by the activation of the target molecules is determined by measuring the effect using a plurality of detection systems each coupled to the different regulatory mechanisms; and

(c) the effects of the test substance on the different test cells or the effects determined using different detection methods are directly or indirectly compared with one another, whereby the effect of the substance on the activity of the target molecules is determined;

b1 wherein said test cells with the same basic biological constitution are test cells derived from one type of tissue and one species.

31. (new) A process for determining the pharmacological effect of a substance on the activity of various biological target molecules, wherein a substance is applied to test cells which contain one or more biological target molecules and the effect of the substance on the activity of the target molecules is determined, characterised in that

(a) a defined amount of a test substance is applied to test cells which contain one or more biological target molecules, the test cells differing in that they have different basic biological constitutions;

(b) the effect of the substance on different regulatory mechanisms triggered by the activation of the target molecules is determined by measuring the effect using a plurality of detection systems each coupled to the different regulatory mechanisms; and

(c) the effects of the test substance on the different test cells or the effects determined using different detection methods are directly or indirectly compared with one another, whereby the effect of the substance on the activity of the target molecules is determined;

wherein said test cells differing in that they have different basic biological constitutions are test cells not derived from one type of tissue and one species.

32. (new) The process of any one of claims 28 and 30, wherein said cells are derived from one type of tissue from one organism.

33. (new) The process of claim 32, wherein said cells are derived from a clone.

34. (new) The process of any one of claims 28-31, wherein a plurality of substances, are applied in parallel to one or more sets of cellular substrates, each set constituting a group of different assays or assay formats based on the same starting cell.

35. (new) The process of any one of claims 28-31, wherein the test cells are mammalian cells.

36. (new) The process of claim 35, wherein the test cells are human cells.

37. (new) The process of any one of claims 28-31, wherein the test cells endogenously express one or more of the target molecules.

38. (new) The process of any one of claims 28-31, wherein the test cells are transformed with the DNA coding for one or more of the target molecule.

39. (new) The process of any one of claims 28-31, wherein the substance is also applied to control cells which do not contain the target molecule and the effect of the test substance on the test cells is compared with their effect on the control cells.

40. (new) The process of any one of claims 28-31, wherein the target molecule is a receptor.

41. (new) The process of claim 40, wherein the receptor is a tyrosinekinase.

42. (new) The process of claim 41, wherein the receptor is the EGF receptor.

43. (new) The process of claim 41, wherein the receptor is HER2.

44. (new) The process of claim 41, wherein the receptor is the HGF receptor.

45. (new) The process of claim 41, wherein the receipt is KDR.

46. (new) The process of claim 40, wherein the receptor is a G protein-coupled receptor.

47. (new) The process of claim 46, wherein the receptor is a neurokinin receptor.

48. (new) The process of claim 46, wherein the receptor is a serotonin receptor.

49. (new) The process of any one of claims 28-31, wherein the target molecule is an intracellular component of a signal transmission pathway.

50. (new) The process of claim 49, wherein, the target molecule is a protein kinase.

51. (new) The process of claim 50, wherein the target molecule is ras.

52. (new) The process of claim 50, wherein the target molecule is raf.

53. (new) The process of any one of claims 28-31, wherein the target molecule is a molecule which participates in apoptosis.

54. (new) The process of claim 53, wherein the target molecule is bcl-2.

55. (new) The process of any one of claims 28-31, wherein the test cells contain a reporter gene under the control of a regulatory sequence which responds to the change in the concentration of a messenger substance of a signal transmission pathway, of which the target molecule is a component, and that the effect of the test substance on the target molecule is determined in a change in the expression of the reporter gene.

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56. (new) The process of claim 55, wherein the reporter gene is luciferase.

57. (new) The process of claim 55, wherein the reporter gene is Green Fluorescent Protein.

58. (new) The process of any one of claims 28-31, wherein the test cells which are dependent on a growth factor for their proliferation are cultivated in the presence of the growth factor and the effect of the substance on the cells is determined by directly or indirectly measuring the apoptosis or the proliferation of the cells.

59. (new) The process of any one of claims 28-31, wherein said process is carried out in the High Throughput Format.

60. (new) The process of claim 34, wherein said substances are applied in several dilutions.